

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25  
 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48  
 49 50 51 52

chain bonds :

1-49 10-51 42-52 44-50

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 13-52  
 14-15 15-16 16-17 17-18 17-49 19-20 19-24 20-21 21-22 22-23 22-52 23-24 24-51  
 25-26 25-30 26-27 26-49 27-28 28-29 29-30 30-50 31-32 31-36 32-33 32-51 33-34  
 34-35 34-50 35-36 37-38 37-42 38-39 39-40 40-41 41-42 43-44 43-48 44-45 45-46  
 46-47 47-48

exact/norm bonds :

13-52 17-49 22-52 24-51 26-49 30-50 32-51 34-50

exact bonds :

1-49 10-51 42-52 44-50

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 14-15  
 15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24 25-26 25-30 26-27 27-28  
 28-29 29-30 31-32 31-36 32-33 33-34 34-35 35-36 37-38 37-42 38-39 39-40 40-41  
 41-42 43-44 43-48 44-45 45-46 46-47 47-48

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom  
 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom  
 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:Atom  
 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom  
 42:Atom 43:Atom 44:Atom 45:Atom 46:Atom 47:Atom 48:Atom 49:Atom 50:Atom 51:Atom  
 52:Atom

> d his

(FILE 'HOME' ENTERED AT 16:16:51 ON 06 JAN 2006)

FILE 'CAPLUS' ENTERED AT 16:17:12 ON 06 JAN 2006  
L1 STRUCTURE UPLOADED  
S L1

FILE 'REGISTRY' ENTERED AT 16:17:42 ON 06 JAN 2006  
L2 605 S L1 FULL

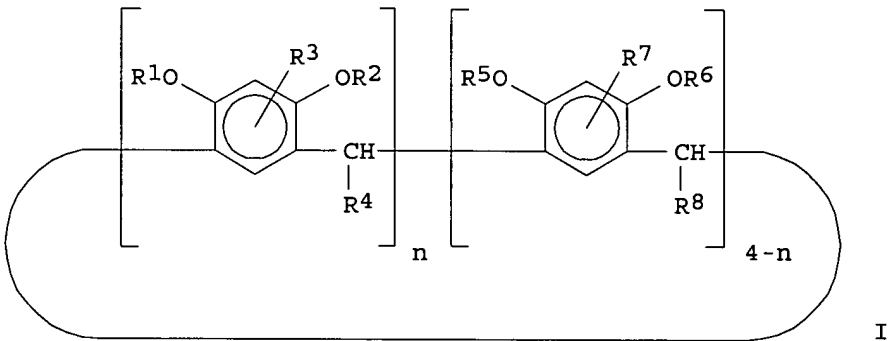
FILE 'CAPLUS' ENTERED AT 16:17:43 ON 06 JAN 2006  
L3 156 S L2 FULL  
L4 117 S L3 AND PY<2003  
L5 19 S L4 AND ALKYL?

FILE 'STNGUIDE' ENTERED AT 16:25:33 ON 06 JAN 2006

=>

L5 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:394118 CAPLUS  
DOCUMENT NUMBER: 129:128942  
TITLE: Toner for electrostatic latent image development  
INVENTOR(S): Ueda, Hideaki; Furukawa, Keiichi  
PATENT ASSIGNEE(S): Minolta Camera Co., Ltd., Peop. Rep. China  
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10161349	A2	19980619	JP 1996-316063	19961127 <--
PRIORITY APPLN. INFO.: GI			JP 1996-316063	19961127

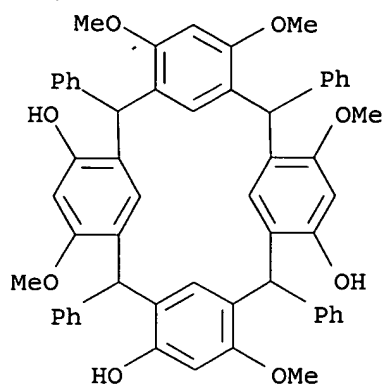


AB The title toner contains a resorcinol arene derivative I (R1, R2, R5, R6 = H, C1-5 **alkyl**, (CH2)mCO2R9; R9 = H, lower **alkyl**; m= 1-3; R1, R2, R5, and R6 cannot be H in the same time; R3, R7 = H, halo, alkoxy, carboxylnitro, **alkyl**, hydroxy; R4, R8 = **alkyl**, aryl, heterocyclyl; n = 1-4) as a charge controlling agent. The toner shows superior charge stability, resistance to heat and solvent, color reproducibility and transparency.

IT 210303-02-9 210303-03-0 210303-04-1  
210303-06-3 210303-08-5 210303-09-6  
210303-10-9 210303-11-0 210303-12-1  
210303-15-4 210303-17-6 210303-21-2  
210303-23-4 210303-25-6 210303-27-8  
210303-29-0 210303-31-4 210303-33-6  
RL: TEM (Technical or engineered material use); USES (Uses)  
(charge controlling agent for electrostatog. toner)

RN 210303-02-9 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacos-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-4,10,16-triol, 6,12,18,22,24-pentamethoxy-2,8,14,20-tetraphenyl- (9CI) (CA INDEX NAME)



RN 210303-03-0 CAPLUS  
 CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacos-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-4,10,16,22-tetrol, 6,12,18,24-tetramethoxy-2,8,14,20-tetraphenyl- (9CI) (CA INDEX NAME)

ACCESSION NUMBER: 1995:994163 CAPLUS  
 DOCUMENT NUMBER: 124:55584  
 TITLE: Preparation of calixarene-based compounds having  
 antibacterial, antifungal, anticancer, and anti-HIV  
 activity  
 INVENTOR(S): Harris, Stephen J.  
 PATENT ASSIGNEE(S): Ire.  
 SOURCE: PCT Int. Appl., 148 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9519974	A2	19950727	WO 1995-IE8	19950124 <--
WO 9519974	A3	19950921		
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, FI, GB, HU, JP, KP, LU, NO, RO, UA, US				
RW: AT, BE, CH, DE, ES, FR, GB, GR, IE, LU, NL, SE, GA, ML, NE, SN, TD, TG				
AU 9515453	A1	19950808	AU 1995-15453	19950124 <--
PRIORITY APPLN. INFO.:			IE 1994-57	A 19940124
			WO 1995-IE8	A 19950124

OTHER SOURCE(S): MARPAT 124:55584

GI For diagram(s), see printed CA Issue.

AB Calixarene-based compds., which are calixarenes or oxacalixarenes, acyclic  
 phenyl-formaldehyde oligomers, cyclotriveratrylene derivs., cyclic  
 tetrameric resorcinol-aldehyde derivs. known as Hogberg compds. and cyclic  
 tetrameric pyrogallol-aldehyde derivs., are prepared For example,  
 calixarenes or oxacalixarenes are represented by general formula [I;  $n + m$   
 $= 3-8$ ;  $m = 0-3$ ;  $n = 0-8$ ;  $R_1 = H$ , halo, hydrocarbyl, aryl, (un)substituted  
 hydrocarbylaryl,  $NO_2$ ,  $SO_3M_1$ ; wherein  $M_1 = alkali\ metal$ ,  $SO_3H$ ;  $R_1 = OR_2$ ;  
 wherein  $R_2 = CH_2CO_2R_3$ ,  $CH_2CO_2Mp/p$ ,  $CH_2CONR_4R_5$ ; wherein  $R_3 =$   
 (un)substituted alkyl;  $M = metal$ , ammonium ion;  $p = the\ charge$   
 on the metal ion;  $R_4$  or  $R_5$  may be the same or different, or both may be  
 part of amino acid ester of poly(amino acid ester) or one or more of the  
 same or different amino acids or part of a cyclic polyene  
 antibiotic/antifungal drug or part of a cyclic nitrogen heterocycle;  $X =$   
 halo,  $NO_2$ ,  $CO_2H$ , cyano, other electron withdrawing group]. Thus,  
 n-butyraldehyde and pyrogallol in a 1:4 mixture of 37% aqueous HCl and EtOH was  
 refluxed under N for 90 min to give a cyclic tetramer (II;  $R = X = H$ ),  
 which was brominated with Br in  $CHCl_3$  to II ( $R = H$ ,  $X = Br$ ) and etherified  
 with Et bromoacetate in the presence of  $K_2CO_3$  in refluxing acetone to give  
 II ( $R = CH_2CO_2Et$ ,  $X = Br$ ). The latter compound was saponified with KOH in  
 refluxing EtOH, acidified with aqueous HCl, and treated with 25% aqueous  $NH_4OH$  to  
 give II ( $R = CH_2CO_2-NH_4^+$ ,  $X = Br$ ). The latter compound in vitro inhibited  
 the infection of C8166 cells with HIV-2, SIV (Simian immunodeficiency  
 virus), and HIV-1 with  $EC_{50}$  of 10, 20, and 0.03  $\mu M$ .

IT 171799-59-0P 171799-60-3P 171799-61-4P  
 171799-62-5P 171799-63-6P 171799-64-7P  
 171799-65-8P 171799-66-9P 171799-67-0P  
 171799-68-1P 171799-69-2P 171799-70-5P  
 171799-71-6P 171799-72-7P 171799-73-8P  
 171799-74-9P 171799-75-0P 171799-76-1P  
 171799-77-2P 171799-78-3P 171799-79-4P  
 171799-80-7P 171799-81-8P 171799-82-9P  
 171799-83-0P 171799-84-1P 171799-85-2P  
 171799-86-3P 171799-87-4P 171799-88-5P  
 171799-89-6P 171799-90-9P 171799-91-0P  
 171799-92-1P 171799-93-2P 171799-94-3P  
 171799-95-4P 171799-96-5P 171799-97-6P  
 171799-98-7P 171799-99-8P 171800-00-3P  
 171800-01-4P 171800-02-5P 171800-03-6P  
 171800-04-7P 171800-05-8P 171800-06-9P  
 171800-07-0P 171800-08-1P 171800-09-2P

CN Acetic acid, 2,2',2'',2''',2''''',2''''',2''''',2''''',2''''',2''''',  
 ''',2''''''''',2'''''''''- [25,26,27,28-tetrabromo-2,8,14,20-tetrakis(3-  
 bromophenyl)pentacyclo[19.3.1.13,7.19,13.115,19]octacos-  
 1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-  
 4,5,6,10,11,12,16,17,18,22,23,24-dodecayl]dodecakis(oxy)]dodecakis-,  
 dodecapotassium salt (9CI) (CA INDEX NAME)

The chemical structure shows a macrocyclic molecule with a central cavity. It consists of four brominated phenyl rings (each with a bromine atom at the para position) and four hydroxymethyl groups (CH<sub>2</sub>OH) arranged in a circular fashion. The rings are connected by ether linkages, and the hydroxymethyl groups are attached to the rings via ether linkages. The overall structure is highly symmetrical.

CC(=O)O      CCOC(=O)O      CC(=O)O

ACCESSION NUMBER: 1995:794919 CAPLUS  
 DOCUMENT NUMBER: 123:325712  
 TITLE: Electrostatic image developing toner.  
 INVENTOR(S): Mukudai, Osamu; Matsuura, Yuuji; Niimura, Isao;  
 Watanabe, Kayoko; Isawa, Keito  
 PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 22 pp  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 651294	A1	19950503	EP 1994-105508	19940408 <--
EP 651294	B1	19980708		
R: DE, FR, GB				
JP 07175269	A2	19950714	JP 1994-93927	19940408 <--
US 5679489	A	19971021	US 1996-620150	19960322 <--
PRIORITY APPLN. INFO.:			JP 1993-293799	A 19931101
			US 1994-224523	B1 19940407

OTHER SOURCE(S): MARPAT 123:325712

GI For diagram(s), see printed CA Issue.

AB An electrophotog. toner free of metal such as Cr comprises  $\geq 1$   
 charge-controlling agent selected from I and II [A, B = H, halogen, alkoxy  
 carboxyl, OH, ester, nitro, amino, **alkylamino**, **alkyl**,  
 Ph; R = H, **alkyl**, Ph, naphthyl; m = 2-16; n = 4-8]. The toner  
 shows no deterioration during preparation, excellent stability, excellent  
 dispersibility in binder resin, and excellent friction chargeability.

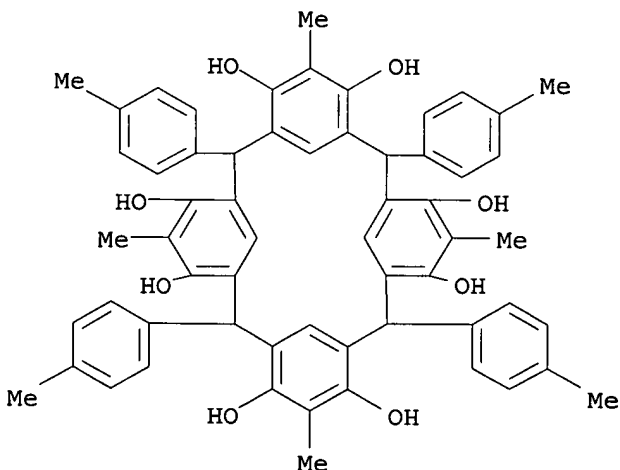
IT 168405-65-0

RL: MOA (Modifier or additive use); USES (Uses)

(charge-controlling agent for electrophotog. toners)

RN 168405-65-0 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1  
 5,17,19(26),21,23-dodecaene-4,6,10,12,16,18,22,24-octol,  
 5,11,17,23-tetramethyl-2,8,14,20-tetrakis(4-methylphenyl)- (9CI) (CA  
 INDEX NAME)



L5 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:520658 CAPLUS

DOCUMENT NUMBER: 123:47027

TITLE: Resorcarenes as pseudostationary phases with selectivity for electrokinetic chromatography

AUTHOR(S): Baechmann, Knut; Bazzanella, Alexis; Haag, Ingo; Han, Kwang-Yong; Arnecke, Ralf; Boehmer, Volker; Vogt, Walter

CORPORATE SOURCE: Fachbereich Chemie, Technische Hochschule Darmstadt, Darmstadt, 64287, Germany

SOURCE: Analytical Chemistry (1995), 67(10), 1722-6  
CODEN: ANCHAM; ISSN: 0003-2700

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Resorcarenes, macrocyclic mols. built up by four **alkylidene** -bridged resorcinol units, were studied as new pseudostationary phases to develop a different mode of pseudophase and to attain a distinct selectivity for electrokinetic chromatog. (EKC). This novel pseudostationary phase has several advantages over traditionally used surfactants in micellar electrokinetic chromatog. First, the stable structure of the cyclic tetramer permits the use of high contents of organic modifiers, i.e., >60% (volume/volume) acetonitrile, to adjust optimum capacity factors. Second, high electrophoretic mobility of the resorcarenes is based on four neg. charges delocalized and stabilized over hydrogen bonds. This supplies a broad elution range, which is a main parameter for resolution of separated peaks. Also, these resorcarenes possess unique selectivity for hydrophobic compds. The order of peak elution with a test mixture involving 12 polycyclic aromatic hydrocarbons (PAHs) is almost identical with that from reverse-phase HPLC. The 1st two terms exclude the contribution of microheterogeneity than decreases the efficiency of EKC when common surfactants were used as pseudophases. The selectivities of resorcarenes with Me, pentyl, undecyl, and p-chlorophenyl groups at the bridging carbons in separation of PAHs are discussed as a function of these residues.

IT 127335-23-3

RL: ARU (Analytical role, unclassified); ANST (Analytical study)  
(as pseudostationary phase with selectivity for electrokinetic chromatog.)

RN 127335-23-3 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacos-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-4,6,10,12,16,18,22,24-octol, 2,8,14,20-tetrakis(4-chlorophenyl)- (9CI) (CA INDEX NAME)

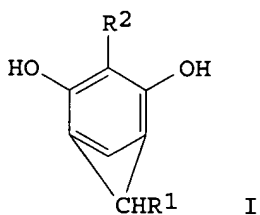




ACCESSION NUMBER: 1992:41117 CAPLUS  
 DOCUMENT NUMBER: 116:41117  
 TITLE: Preparation of calix[4]arenes and their use as  
 antioxidants in synthetic rubber  
 INVENTOR(S): Ehrhardt, Dieter; Hauptmann, Siegfried; Mann, Gerhard;  
 Mertens, Wilfried; Noll, Bernd; Weinelt, Frank;  
 Weinelt, Herbert  
 PATENT ASSIGNEE(S): Karl-Marx-Universitaet Leipzig, Germany  
 SOURCE: Ger. (East), 17 pp.  
 CODEN: GEXXA8  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 290412	A5	19910529	DD 1989-335784	19891218 <--
DE 4022920	A1	19910620	DE 1990-4022920	19900719 <--
NL 9002777	A	19910716	NL 1990-2777	19901217 <--
PRIORITY APPLN. INFO.:			DD 1989-335784	A 19891218
OTHER SOURCE(S):		CASREACT 116:41117; MARPAT 116:41117		

GI



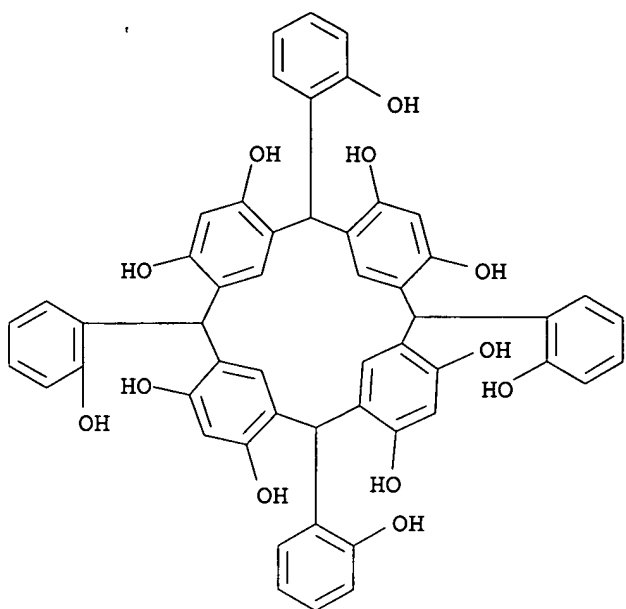
AB A process for the preparation of cyclic polynuclear phenols I (R1 = alkyl, aryl; R2 = Br, etc.) comprises the treatment of calix[4]arenes I (R1 = alkyl, aryl; R2 = H) with bromine in AcOH. A process for the preparation of I (R1 = Me; R2 = CH<sub>2</sub>NMe<sub>2</sub>, CH<sub>2</sub>NEt<sub>2</sub>, piperidinomethyl, etc.) comprises the aminomethylation of I (R1 = Me, R2 = H). A process for the preparation of I (R1 = H; R2 = Me, OH) comprises the reaction of 1,3-benzenediol with in aqueous/acidic solution with HCHO in a 4:3 ratio. A process for the preparation of I (R1 = Me; R2 = H, OH) comprises the H<sub>2</sub>SO<sub>4</sub>-catalyzed condensation of polyvalent phenols or alkyl-substituted polyvalent phenols with MeCHO, whereby MeCHO is passed into the hot phenolic solution at 95°. The use of polynuclear phenols thus prepared is claimed as antiaging agents for rubber materials; such antiaging agents can addnl. contain mercaptobenzimidazole and/or substituted p-phenylenediamines. A caoutchouc/butadiene-styrene-based mixture containing natural caoutchouc 51.00, oil-stretched butadiene-styrene rubber 49.00, plasticizer 9.20, ZnO 11.80, kaolin 29.60, precipitated silicic acid 28.90, Zn sulfide/Ba sulfide filler 37.50, factice 4.90, stearic acid 2.30, colophonium 5.30, wax 4.90, tetramethylcalix[4]areneoctol 2.00, diphenylguanidine 0.20, tetramethylthiuramdisulfide 0.72, mercaptobenzothiazole 0.85, and sulfur 2.60 parts by weight was vulcanized. Tetramethylcalix[4]areneoctol had better antiaging properties than the same rubber composition containing 2,6-di-tert-butyl-4-methylphenol.

IT 135269-77-1

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (aminoalkylation of)

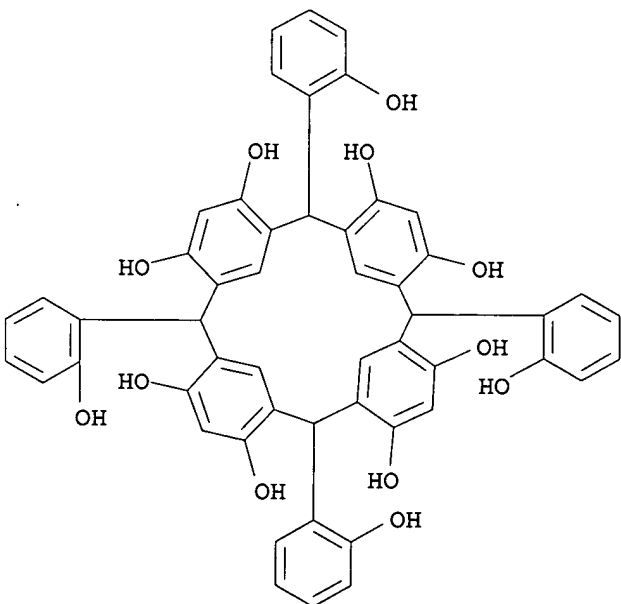
RN 135269-77-1 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacos-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-4,6,10,12,16,18,22,24-octol, 2,8,14,20-tetrakis(2-hydroxyphenyl)- (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1991:471170 CAPLUS  
 DOCUMENT NUMBER: 115:71170  
 TITLE: Preparation of tetrabromopentacyclooctacosadodecaenols, i.e. brominated calix[4]arenes  
 INVENTOR(S): Noll, Bernd; Weinelt, Frank; Weinelt, Herbert; Hauptmann, Siegfried; Mann, Gerhard; Ehrhardt, Dieter; Mertens, Wilfried  
 PATENT ASSIGNEE(S): VEB Chemiekombinat Bitterfeld, Germany  
 SOURCE: Ger. (East), 4 pp.  
 CODEN: GEXXA8  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 287481	A5	19910228	DD 1988-320057	19880923 <--
PRIORITY APPLN. INFO.:			DD 1988-320057	19880923
OTHER SOURCE(S): CASREACT 115:71170; MARPAT 115:71170				
GI For diagram(s), see printed CA Issue.				
AB Title compds. I [R = (substituted) alkyl, aryl; X = Br] are prepared by treating suspensions of I (X = H) in AcOH with elemental Br at 20-40°. I (R = Me, 2-HOC <sub>6</sub> H <sub>4</sub> ; X = Br) were thus prepared at 30° in .apprx.98% yield, and were analyzed as octabutyrate.				
IT 135269-77-1				
RL: RCT (Reactant); RACT (Reactant or reagent) (bromination of)				
RN 135269-77-1 CAPLUS				
CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacos-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-4,6,10,12,16,18,22,24-octol, 2,8,14,20-tetrakis(2-hydroxyphenyl) - (9CI) (CA INDEX NAME)				



IT 135201-31-9P